REMARKS

Claims 1 through 20 were pending in the present application when last examined and were rejected. Claims 1, 3 - 5, 8, 11-12, 14, 16 - 18 are being amended for clarity and to comply with the Examiner's requests. New claims 21 through 25 are added. No new matter is being added. Hence, claims 1 through 25 are pending in the present application.

Objections to the Specification

In item 3, on page 2, the Office Action objected to the specification stating that, "the disclosure is objected to because of the following and formalities: incorrect terminology. The term 'data type definition' should be 'document type definition'. Appropriate correction is required."

Applicant has amended the specification to comply with the Examiner's request.

Objections to the Claims

In item 4, on page 2, the Office Action objected to claims 3, 5, 11, 16, and 18 stating that, "[the claims] are objected to because of the following and formalities: incorrect terminology. The term 'data type definition' should be 'document type definition,' which is consistent with how those with ordinary skill in the art would interpret the term as it is described in the specification. Further, the office will assume for this examination that the term should be 'document type definition' or 'DTD'. Appropriate correction is required."

Applicant has amended claims 3, 5, 11, 16, and 18 to comply with this request.

Rejection under 35 U.S.C. § 112, first paragraph

In item 5, on page 2, the Office Action rejected claim 4 under 35 U.S.C. § 112, first paragraph, as being based upon the disclosure which is not enabling.

Applicant respectfully traverses.

Specifically, the Office Action asserts, "TML is critical or essential to the practice of the invention, but not included in the claims." The Office Action quotes the last paragraph of the summary of the invention, which states that:

> According to one embodiment, a Telnet Markup Language (TML) is used to replicate the behavior of the database applications. When the device is a client that supports the Telnet protocol, an XSL document is applied to format the XML from the database into a Telnet markup language ("TML"). A Telnet server then uses the TML to provide an interface to the Telnet device.

The Office Action supports the asserted "TML is critical or essential to the practice of the invention, but not included in the claims" by stating that "there is no industry understanding or standard for such a reference to TML".

It is respectfully submitted that these rejections should be withdrawn for the following reasons:

First, recent court decisions have confirmed that there is no legal basis for what has come to be known as "omitted essential element" rejections.

Second, TML is not essential to the practice of the invention. Even the quoted section makes it clear that TML is only used in "an embodiment", and does not imply it is required for all embodiments, or even all embodiments that involve a client that supports the Telnet protocol.

Finally, if "omitted essential element" rejections were valid, and if TML was an omitted essential element, then all of the claims not expressly reciting TML would be invalid, not just Claim 4. The Office Action's failure to reject all claims on these grounds makes it clear that this is not the case, so the rejection should be withdrawn.

It is noted that Claim 4 has been amended as follows:

4. (Amended) The method of Claim 1 wherein:

the particular client is a Telnet client;

the Telnet client communicates with a Telnet server to request data from said database application; and

the step of providing said output to said particular client includes the steps of sending the output to said Telnet server <u>using a recipient specific format</u>; and

said Telnet server providing said output to said Telnet client.

New claim 21 has been added. Claim 21 depends from claim 4 and recites that the receiver specific format comprises telnet markup language (TML).

It is fully anticipated that the TML may change. It may no longer even be called the TML. Therefore, since the purpose of the claim is to put the reader on notice as to the claimed embodiment, this is done more effectively by the foregoing claim amendment and additional new claim.

Additionally, although the Office Action did not indicate it, Applicant has amended claim 17 and added new claim 22 for analogous reasons.

It is respectfully submitted that the section 112 rejection has been overcome.

Rejection under 35 U.S.C. § 103(a) based on Bayeh in view of Boag

In items 7 - 9 that begin on page 3, the Office Action rejected claims 1 – 3 and 5 - 20 under 35 U.S.C. § 103(a) as being unpatentable over US Patent Number 6,012,098 to Bayeh et al (hereinafter "Bayeh") in view of US Patent Number 6,589,291 to Boag et al.. These rejections are traversed.

The Office Action asserts in item 9 that Bayeh teaches: a) the role of the data servlet is only to retrieve data from a database (Bayeh, col. 8: lines 6 - 7) and b) before the data servlet can pass data to another servlet ... it must format the data ... in the preferred embodiment of the present invention, the data servlet formats its output as an XML data stream (Bayeh, col. 8: lines 13 - 18) which c) provide for converting of the data ... into an XML output with how to regard to the device type of the particular client.

With respect to this rejection, the Office Action admits that Bayeh et al do not explicitly teach:

a) identifying the client device type of the particular client,

b) reading metadata that indicates how to convert said XML output to output for said client device type,

c) ... converting the XML output for said client device type, and

d) providing output for said client device type descent particular client.

The Examiner cites Boag, however, for teaching that:

the selected style sheets are tailored to the client device ... this is done by inspecting the value of the UserAgent field of the HTTP request that are with which the document was requested. This UserAgent value will identify the browser running on the client device. (Alternatively, protocols such as CC/PP may be available for querying the device/browser to determine its capabilities dynamically.) (Boag, Col. 10: lines 42 – 50)

which the Examiner argues provides for identifying the client device type of the particular client. In addition, argues the Office Action, Boag also teaches that

"selecting one or more style sheets to transform a particular input document; determining whether a client device is capable of applying the selected style sheets; applying the selected style sheets and client device when the determining has a positive result; and applying the selected style sheets at a server when the determining has a negative result (Boag, Col. 4, lines 29-36) and that the input that can be encoded in extensible markup language (XML). The style sheets may be encoded in a style sheet language such as extensible style sheet language (XSL) (Boag, Col. 5: lines 8 – 11), which provide for 'reading metadata (XSL) that indicates how to convert said XML output to output for said client device type'."

The Office Action argues that,

"it would be obvious to one with ordinary skill in the art at the time of the invention to know that Boag's invention is capable of ... converting the XML output for said client device type, since Boag et al. further teach that 'XML is emerging as a powerful methodology representing document content, due to its ability to store data in a self defining, portable manner. Style sheet languages such as access the, long with their associated processors, are powerful tools for ... transforming documents included in one markup language into other markup languages such as HTML or WML.' (Boag, Col: 2: lines 20 – 28)."

However, as shall be explained hereafter, these assertions are not correct.

Claim 1 recites:

1. (Amended) A method for allowing multiple types of clients to use a database

application without hard-coding presentation logic for each of the multiple types of clients into the database application, the method comprising the steps of:

prior to providing data from the database application to a particular client, performing the steps of:

converting the data that is to be transmitted from the database application to the particular client into an XML output without regard to the device type of the particular client; and

identifying the client device type of the particular client;

reading metadata selected based on the client device type, wherein the metadata indicates how to convert said XML output to output for said client device type; and

based on said metadata, converting the XML output to output for said client device type; and

providing the output for said client device type to said particular client.

Claim 1 is not taught, suggested or otherwise rendered obvious by Bayeh in view of Boag. Apparently, the Office Action is confusing Boag's browser identifier to the recited client device type. Even if arguendo, Boag's browser identifier could be equated to the client device type recited in Claim 1 (which it cannot be), the Office Action's asserted combination would still fail to render the invention recited in Claim 1 obvious. Specifically, with regard to the Office Action's assertions: a) Boag's use of a browser identifier fails to teach the selection of metadata using a client device type of Applicant's claimed embodiments; b) Boag would be inoperable in the event that the client did not include a browser or employ CC/PP protocol; c) Boag teaches away from the claimed embodiments; and d) the asserted combination is not suggested by either and requires the use of impermissible hindsight.

As recited in Claim 1, the metadata used to covert XML output for a client device type is selected based on the client device type. As is made clear by the specification, "client device type" indicates the type of device that a client is. For example, dumb terminals, bar code

scanners or other "dumb" terminals are types of client devices. Accordingly, to clear any confusion, Claims 1, 8, 12 and 14 have been amended to recite that the metadata is selected based on the client device type and has further added a dependent claims 23 - 25, wherein a browser-less device, such as a dumb terminal, bar code reader or browser-less device, is included as the client device. No new matter is being added.

Bayeh and Boag are not combinable. If it were possible to combine Bayeh and Boag, then a Patent should only have issued to one or the other because at least one would be rendered obvious by the other. Further, even if arguendo, Bayeh and Boag were able to be combined, the asserted combination fails to teach, suggest or render obvious the inventions of claims 1 – 3, 5 - 20. The Office Action's argument requires that Boag's browser id be equated to the recited client device type. This assertion ignores the difference in function between the claimed embodiment and Boag. The recited client device type is used select metadata in order to CONVERT an XML output to an output for use with the client device. Boag's server, however, checks to see if the client device can apply the style sheet by inspecting the value of a UserAgent field of the HTTP request header received with an incoming message from the client browser. (Boag, Col. 10: lines 42 – 50). "This user agent value will identify the browser running, client device." (Boag, Col. 10: lines 47 – 49). Boag must rely upon the presence of a browser or CC/PP protocol at the client and uses the browser identifier to determine WHERE to apply a style sheet. Boag teaches a method that may not even produce an output executable on the client at the server. Accordingly, the assertion that these references can be combined is inappropriate for at least these reasons.

The purposes AS TAUGHT in each of the references are incompatible. Boag's system dynamically determines the most appropriate location for applying style sheets. (Boag, Abstract). In Boag's system, style sheets may be applied at the server or the client or both. Boag REQUIRES that the browser identifier be used to determine WHERE to apply a style sheet. Bayeh teaches a system for using the servlet to isolate the retrieval of data from the rendering of data into presentation format. (Bayeh, Abstract). In Bayeh's system, a style sheet is always

applied by a "rendering servlet" in a server. The purpose of dynamically determines the most appropriate location for applying style sheets, for example, of Boag is not compatible with the purpose of isolating the retrieval of data from the rendering of data in a server of Bayeh. The purpose as well as the problems addressed by these two references are incompatible. Accordingly, the assertion that these references can be combined is inappropriate for these reasons as well.

Therefore, Bayeh and Boag do not teach, suggest or render obvious the claimed embodiments, either alone, or in any combination, for at least these reasons.

The Office Action's suggested combination renders Boag inoperable or unsatisfactory for its intended purpose or changes Boag's principle of operation. The Office Action argues that, " it would be obvious to one with ordinary skill in the art at the time of the invention to know that Boag's invention is capable of ... converting the XML output for said client device type, since Boag et al. further teach that 'XML is emerging as a powerful methodology representing document content, due to its ability to store data in a self defining, portable manner. Style sheet languages such as access the, long with their associated processors, are powerful tools for ... transforming documents included in one markup language into other markup languages such as HTML or WML.' (Boag, Col: 2: lines 20 – 28)." Boag's system, however, uses an HTTP identifier to identify the capabilities of the client device. (Boag, Col. 8: lines 42-52). Applicant's invention contemplates devices that may not include HTTP. (Specification, FIG. 3 and page 22, paragraphs 1 and 2). The Examiner's suggestion that Boag's browser identifier may be used to determine a device type is incorrect at least because the suggestion renders Boag inoperable or unsatisfactory for its intended purpose or changes Boag's principle of operation (see MPEP § 2143.01).

Boag's browser identity based approach not only fails to teach, suggest or disclose the claimed embodiments of the present invention, it clearly teaches away. Boag's browser identity based approach necessarily REQUIRES a browser at the client in order to determine where a

stylesheet may be applied, (Boag, Col. 10: lines 42 – 50).

In contrast, the claimed techniques involve a multiple stage process for formatting documents in an output specific to many types of devices, including "devices [that] can be just dumb-terminals supporting Telnet to full fledged miniature PCs with their own operation system, browsers and support for writing applications," (Specification, page 5) which may not even be equipped with browsers or function with CC/PP protocol as REQUIRED by Boag. (Boag, Col. 10: lines 42 – 50). Embodiments employing Applicant's approach enable the advantage, "to enter data directly into database applications using mobile devices, such as bar-code readers, will improve efficiency and reduce data entry errors, in short making a person more effective. It also provides real-time information of the system since data can be entered as a transaction is being performed. Bar-code readers with wireless RF communications would further help in performing transactions from anywhere within an inventory warehouse." (Specification, page 5, paragraph 2). Boag's use of a browser identifying information in order to determine where to apply a style sheet teaches away from the claimed identifying the client by a client device type and formatting information at the server according to the device type. Accordingly, for at least the foregoing reasons, Boag teaches away.

The Office Action asserts that identifying the client device is taught by Boag because Boag discloses "the selected style sheets are tailored to the client device ... this is done by inspecting the value of the UserAgent field of the HTTP request that are with which the document was requested. This UserAgent value will identify the browser running on the client device." (Boag, Col. 10: lines 42 – 50). As discussed above, however, Boag uses an HTTP identifier, rather than a client device type; nor does Boag provide means for identifying dumb terminals, bar code readers and other browser-less devices. To suggest otherwise would further require impermissible hindsight, since the system of Boag is NECESSARILY configured to provide inspecting a field of an HTTP request or alternatively using CC/PP protocol. (Boag, Col. 10: lines 42 – 50). Further, the Examiner's suggestion that Boag's browser identifier may be used to determine a device type of dumb terminals, bar code readers or other browser-less clients fails to provide a reasonable expectation of success. (see MPEP § 2143.02). In other words, and

with all due respect, Boag's teachings contradict the Examiner's assertion.

Combination with Bayeh does not remedy any of the discussed failings of Boag. Therefore, Bayeh, Boag, nor any combination thereof, teach, suggest or disclose the claimed embodiments for at least these reasons. The embodiments recited by claims 8, 12 and 14, while independently patentable, are patentable over Bayeh and Boag for at least the same reasons as discussed with regard to claim 1.

Claims 2 – 7, 9 – 11, 13 and 15 - 20 are dependent claims depending from claims 1, 8, 12 and 14 respectively. Therefore claims 2 – 7, 9 – 11, 13 and 15 - 20 are patentable over Bayeh and Boag for at least the same reasons that claims 1, 8, 12 and 14 are patentable over Bayeh and Boag.

Therefore, Bayeh and Boag do not teach, suggest or render obvious the claimed embodiments, either alone, or in any combination, for at least these reasons. Applicant respectfully requests: (1) withdrawal of the rejection and (2) withdrawal of Bayeh and Boag from further consideration as a reference in the instant case.

Rejection under 35 U.S.C. § 103(a) based on Bayeh in view of Boag and further in view of Siyan

In items 28 - 29 that begin on page 12, the Office Action rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Bayeh in view of Boag and further in view of a publication entitled, "Netware TCP/IP and NFS" to Siyan ("Siyan"). Applicants respectfully traverse.

The Office Action admits that, "regarding dependent claim 4, neither Bayeh nor Boag explicitly teach where 'the particular client is a telnet client, the telnet client communicates with the telnet server to request data from said database application or providing said output ... includes the steps of sending the output to said telnet server and said telnet server providing said output to send telnet client." The Office Action argues however, that Siyan teaches that to

support it, session, he must have the telnet client component running at the user's workstation and a telnet server running at the remote host. A TCP/IP session is sent out between the telnet client to the telnet server. As the user types the keyboard commands, the characters are received by the telnet server ... (page 94, second paragraph block), which provides for 'the particular client is a telnet client, the telnet client communicates with the telnet server to request data from said database application' (page 103, figure 2.17), and that the results of the commands are sent by the telnet server to the telnet client. The telnet client displays the results received from the telnet server on the user workstations display unit (page 94, last paragraph block), which provides for 'providing said output ... includes the steps of sending the output to said, server and said, to server providing said output to said telnet client.'

The Office Action argues that, "it would have been obvious to one with ordinary skill in the art to the time of the invention to combine the teachings of Siyan with the combined inventions of Boag and Bayeh because those skilled in the art would note that 'frequently, the term TCP/IP is used to refer to a group of protocols related to the TCP and IP protocols such as terminal emulation protocol (telnet)' (Siyan, page 11, last sentence), since the combined invention utilizes (TCP/IP) (Boag, Figure 2)." Applicant respectfully disagrees.

Siyan fails to remedy the failings of Bayeh and Boag, either alone or in any combination, to render the claimed embodiments obvious. Examiner's asserted combination would render Boag and Bayeh inoperable. Specifically, Applicant has already pointed out Boag's reliance upon a browser at the client ("the selected style sheets are tailored to the client device ... this is done by inspecting the value of the UserAgent field of the HTTP request that are with which the document was requested. This UserAgent value will identify the browser running on the client device. (Alternatively, protocols such as CC/PP may be available for querying the device/browser to determine its capabilities dynamically.) (Boag, Col. 10: lines 42 – 50)"). Siyan teaches a telnet client, which would not be compatible with the HTTP implementations required by Boag and Bayeh. Not only is there no suggestion to combine the teachings of Bayeh and Boag with Siyan, but further, the asserted combination would render Boag inoperable or unsatisfactory for its intended purpose or changes Boag's principle of operation (see MPEP § 2143.01).

Therefore, Bayeh, Boag, Siyan nor any combination thereof, teach, suggest or disclose the claimed embodiments for at least these reasons. The embodiments recited by claim 17, while independently patentable, are patentable over Bayeh, Boag and Siyan for at least the same reasons as discussed with regard to claim 4. Claims 21 and 22 are dependent claims depending from claims 4 and 17 respectively. Therefore claims 21 and 22 are patentable over Bayeh, Boag and Siyan for at least the same reasons that claims 4 and 17 are patentable over Bayeh, Boag and Siyan.

Therefore, because Siyan does not remedy the failings of Bayeh and Boag, the asserted combination does not teach, suggest or render obvious the claimed embodiments, either alone, or in any combination, for at least these reasons. Applicant respectfully requests: (1) withdrawal of the rejection and (2) withdrawal of Siyan from further consideration as a reference in the instant case.

Because each of the cited references, Bayeh, Boag and Siyan do not teach, suggest or render obvious and even teach away from the inventions of claims 1 – 22, Applicants respectfully request withdrawal of each and every one of these references from further consideration and timely allowance of claims 1 – 22 for at least the foregoing reasons.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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